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INTERGOVERNMENTAL NEGOTIATING COMMITTEE
FOR THE ELABORATION OF AN INTERNATIONAL
CONVENTION TO COMBAT DESERTIFICATION IN
THOSE COUNTRIES EXPERIENCING SERIOUS
DROUGHT AND/OR DESERTIFICATION,
PARTICULARLY IN AFRICA
Third session
New York, 17-18 January 1994
Agenda item 2

ELABORATION OF AN INTERNATIONAL CONVENTION TO COMBAT DESERTIFICATION IN THOSE COUNTRIES EXPERIENCING SERIOUS DROUGHT AND/OR DESERTIFICATION, PARTICULARLY IN AFRICA

Definition of terms relating to the Convention

Note by the Secretariat

1. At the second session in Geneva, the members of the Intergovernmental Negotiating Committee (INCD) were generally agreed on the usefulness of compiling a list of internationally agreed definitions of technical terms that would not be included in the Convention but were related to it. The Secretariat was asked to prepare such a list with the assistance of the International Panel of Experts on Desertification (IPED).

2. In addition, a number of terms had been proposed for definition by various Governments. A list of definitions of those terms has been prepared by Nicolai G. Kharin, a member of IPED (see annex I). It is part of a broader initiative funded by the United Nations Environment Programme to update a glossary of terms relating to arid lands first published in 1975 by Ylym Publishing House, Ashkabad, Turkmenistan.

3. The Secretariat also has compiled, as requested, for the Committee's consideration, a separate sample of some additional terms of relevance to the Convention. The definitions are from intergovernmental organizations and various other sources, as shown on the list, and are provided in English and French (see annex II).

4. Subject to the views of the INCD members, both lists could be made available in other official languages at the fourth session of INCD in Geneva.

5. Members will note that the negotiating text of the Convention prepared by the Secretariat includes a provision (A/AC.241/15, art. 1 (2)) whereby the Secretariat would be required to maintain an information glossary of internationally agreed definitions of other terms relevant to the Convention. The lists contained in annexes I and II below could form the basis of that glossary.

Annex I

ENGLISH ONLY

TERMS PROPOSED BY INCD MEMBERS FOR DEFINITION

(a) Climate variation (Climatic variation):

A fluctuation, or a component thereof, whose characteristic time scale is sufficiently long to result in appreciable inconstancy of successive 30 year averages (normal) of the variable. Often used to designate common natural variation from one year to the next, or changes from one decade to the next. (WMO, 1992)

Drylands:

Lands with low precipitation rate where transpiration exceeds precipitation. (M.P. Petrov, 1975)

Length of growing season:

In temperature climates, the number of days during the year when temperature and moisture are most favourable for plant growth. In tropical climates it is determined by the availability of moisture. (M.M. Kothmann, 1974) (I.A. Dudka, 1984)

Climate classification:

Climates are defined by ratios of available precipitation to potential evapotranspiration :

Hyper-arid	<0.05
Arid	0.05 - 0.20
Semi-arid	0.21 - 0.50
Dry sub-humid	0.51 - 0.65
Moist sub-humid and humid	>0.65

(Status of desertification..., 1992)

(b) Agricultural drought:

Shortage of moisture in the soil hindering the growth and ripening agricultural crops. (Drought and agriculture, 1975)

Meteorological drought:

Long drought caused by absence of precipitation. (J.E. Buchinsky, 1976)

Hydrological drought:

Shortage of surface and underground water resources caused by prolonged meteorological drought.

Drought threshold:

Low content of soil moisture corresponding to the wilting point when agricultural crops wither up. (I. Peanson, 1972)

Serious (severe) drought:

Long drought lasting more than one year (or one season) and causing catastrophic disaster in agriculture. (E.A. Weizman, E. Litvinenko, 1974)

(c) Water resources

Quality of water resources:
Fitness of water for different use (potable water, irrigation water, technical water, etc.).

Quantity of water resources:
Flow of surface and underground waters expressed in cubic meters per year.

Hydrological cycle:
The succession of stages through which water passes in the atmosphere: evaporation from the land or sea or inland waters, condensation to or from clouds, precipitation, accumulation in the soil or in bodies of water and re-evaporation. (WMO, 1992)

Irrigation:
Artificial application of water to lands for agricultural purposes. (IGH)

Precipitation enhancement:
Artificial measures to increase precipitation (by cloud seeding, etc.). (I. Paenson, 1972)

Shared waters:
Surface and underground water resources of a region commonly used by different consumers. (L.D. Stamp, 1961)

(d) Desiccation:
A natural process by which a region suffers complete loss of water owing to decrease in rain, increase of evaporation or change in other climatic factors. (N.G. Kharin, M.P. Petrov, 1975)

Stability threshold:
Ecosystem status by which it could lose the ability for natural regeneration. (A.G. Balaev, et al., 1993)

Risk of desertification:
Inherent risk of desertification, the sum of physical and ecological factors which determine the ecosystem stability. (A.G. Balaev, et al., 1993)

Speed of desertification:
Rate of qualitative or quantitative change of desertification status per given period of time, usually 10-15 years. (A.G. Balaev et al., 1993)

Elementary ecosystem:
Physical complex consisting of one plant community and developing in the frame of one biotope (ecologically equal site locality). (B.A. Bykov, 1983)

(e) Overgrazing:
Continued overuse of pasture, creating deteriorated conditions of a significant departure from natural potential. (M.M. Kothmann, 1974)

Degradation of vegetation:
Diminishing the biological productivity, change of plant composition and loss of economic potential of natural vegetation. (A.G. Balaev et al., 1993)

(f) Combat desertification:
Set of measures on prevention, rehabilitation and improvement of lands prone to or affected by desertification.

Prevention of desertification:
Measures to prevent the prolonged deterioration of biological and economic potential of lands prone to desertification.

Rehabilitation of desertified lands:
Partial or full restoration of biological and economic potential of lands affected by desertification.

Management of desertified lands:
System of measures on proper utilization of desertified lands aiming to stop their further degradation.

Improvement of desertified lands:
Measures on partial amelioration of desertified lands by soil conservation, afforestation, pasture improvement, etc. aiming to increase their potential in the process of current activity of people.

Technology for combatting desertification:
The sum of methodologies and technical means used for realization of measures to combat desertification.

Traditional technology for combatting desertification:
The sum of traditions and methodologies developed by local people in the process of adaptation to severe desert conditions.

Management of fragile ecosystems:
Special measures on conservation and limited utilization of the potential of fragile ecosystems without damaging their ability for regeneration.

Land reclamation:
Human activity on land utilization, conservation and improvement for the benefit of man.

(g) Integrated development:
Coordinated economic and social development embracing all branches of the national economy on the basis of one concept.

Sustainable rural development:
Economic and social development of rural country based on the concept of the continuity and constancy of utilization or renewal of resources without their exhaustion.

Local community:
Community of people usually living in one village united by common historical traditions, culture, a common land-use system and forming, as a rule, one administrative unit.

Alternative livelihoods:
New livelihoods to be compared with traditional livelihoods earned by local people for a long period of time in the locality under consideration.

Alternative energy systems:
New energy systems, e.g. solar, wind, biogas, etc. which don't contaminate the environment and which could replace traditional energy systems.

Population growth:
Increase in the number of people in a given country or locality as a percentage or the number of newborns per 1000 inhabitants.

Migration:
Mass movement of people from their domicile under pressure of poverty, political instability or ecological disaster.

(h) Minimum data sets

Climate variables:
Albedo, rainfall, air temperature, air humidity, wind velocity, dust storms.

Soil and water variables:
Groundwater, major surface waters, wind erosion, water erosion, soil salinization, waterlogging, soil compaction and sealing.

Vegetation variables:
Plant species composition, woody biomass, fodder biomass, disappeared plant and animal species.

Land-use variables:
Land-use system, land-tenure system, changes in land use, structure of sown areas, yield of major staple crops, composition and number of livestock, animal pressure.

Socio-economic variables:
Human population, population changes, seasonal and annual human migration, infant and adult mortality rates, length of life, human disease status, per capita income, income distribution, sources of income, market prices of key food stuffs, energy availability and prices.

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Annex II

ENGLISH/FRENCH ONLY

DEFINITIONS OF RELATED TERMS
COMPILED BY THE SECRETARIAT

Some definitions are taken from the second edition (1992) of the "International meteorological vocabulary". As in the first edition, they take due account of the definitions approved by the technical commissions or other constituent bodies of the World Meteorological Organization, as well as terms and definitions adopted by other organizations or institutions, particularly the International Civil Aviation Organization, the International Commission on Illumination, the Food and Agriculture Organization of the United Nations and the American Meteorological Society.

Certaines définitions sont tirées de la nouvelle édition (1992) du vocabulaire météorologique international. Elles tiennent compte, comme pour la première édition, des définitions approuvées par les commissions techniques ou d'autres organes constituants de l'OMM, de même que des termes et définitions adoptés par d'autres organisations ou institutions en particulier l'Organisation de l'aviation civile internationale, la Commission internationale de l'éclairage, l'Organisation des Nations Unies pour l'alimentation et l'agriculture et la Société météorologique américaine.

ALBEDO
ALBEDO

(1) Ratio of the radiation (radiant or luminous energy) reflected by a surface to that incident on it.(WMO 1992)
(2) Ratio of reflected-to-incoming radiation usually given in per cent.(ICSI)

(1) Rapport du rayonnement (énergétique ou lumineux) réfléchi par une surface au rayonnement incident.(OMM, 1992)
(2) Rapport du rayonnement réfléchi au rayonnement incident, exprimé généralement en pourcentage.(ICSI)

ARID CLIMATE
CLIMAT ARIDE

(1) A climatic type which is characterized by insufficient moisture to support appreciable plant life.(WMO, 1992)
(2) Generally, extremely dry climate.

(1) Type de climat caractérisé par une humidité insuffisante pour entretenir une vie végétale appréciable.(OMM, 1992)
(2) Généralement, un climat extrêmement sec.

ARIDITY
ARIDITE

(1) Condition in which evaporation always exceeds precipitation.(IGH)
(2) Characteristic of a climate relating to insufficiency or inadequacy of precipitation to maintain vegetation.(WMO, 1992)

(1) Condition dans laquelle l'évaporation potentielle excède toujours les précipitations.(GIH)
(2) Caractéristique d'un climat où les précipitations sont insuffisantes pour assurer le maintien de la végétation.(OMM, 1992)

ARIDITY INDEX
INDICE D'ARIDITE

(1) Number expressing the degree of dryness of a climate as a function of various climatic factors.(WMO, 1992)

(1) Nombre exprimant le degré de sécheresse d'un climat en fonction de divers facteurs climatiques. (OMM, 1992)

ARID ZONE
ZONE ARIDE

(1) Zone in which precipitation is so deficient that irrigation must be practised to support cultivation.(WMO, 1992)
(2) Zone in which evaporation always exceeds precipitation.(IGH)

(1) Zone dans laquelle les précipitations sont si insuffisantes qu'il faut pratiquer l'irrigation pour y maintenir les cultures.(OMM, 1992)
(2) Zone dans laquelle l'évaporation excède toujours la quantité de précipitations. (GIH)

CLIMATE
CLIMAT

Synthesis of weather conditions in a given area, characterized by long-term statistics (mean values, variances, probabilities of extremes, values, etc.) of the meteorological elements in that area.(WMO, 1992)

Synthèse des conditions météorologiques dans une région donnée, caractérisée par des statistiques, à long terme (valeurs moyennes, variance, probabilités de valeurs extrêmes, etc) des éléments météorologiques dans cette région.(OMM, 1992)

DEFORESTATION
DEBOISEMENT

Removal of forest.(IGH)

Abattage des arbres d'une forêt.(GIH)

DESERT
DESERT

A region where precipitation is insufficient to support any except xerophilous vegetation; a region of extreme aridity.(AMS)

Région caractérisée par une sécheresse presque absolue et continue ainsi que par la nature exrophile et la pauvreté extrême de végétation qui en résulte.(AMS)

DESERT CLIMATE
DESERT CLIMATIQUE

A climate type which is characterized by insufficient moisture to support appreciable plant life; that is, a climate of extreme aridity. (AMS)

Type de climat caractérisé par une humidité insuffisante au maintien à une vie végétale visible; c'est à dire un climat d'aridité extrême. (AMS)

DESSICCATION
DESSECHEMENT

Result of a permanent lack of water within a region due to a decrease in rainfall, a lack of irrigation or possibly deforestation or over-cropping. (OMM, 1992)

Résultat d'une pénurie permanente d'eau dans une région due à une diminution des pluies, à un manque d'irrigations ou peut-être à la déforestation ou à la surexploitation agricole. (OMM, 1992)

EROSION
EROSION

Wearing away of the soil by running water, glaciers, winds and waves.(IGH)

Usure du sol et transport des particules arrachées par l'eau courante, les glacier, le vent et les vagues. (GIH)

EROSION HAZARD

The risk that erosion of soil will occur under certain conditions. Poor soil management with inadequate vegetation cover is an adverse condition and a high erosion hazard; undisturbed natural vegetation is a low erosion hazard. (FAO. Guidelines for land use planning. IDWG on Land Use Planning. FAO. 1989)

EROSION, SOIL

Removal of soil by forces of nature more rapidly than various soil-forming processes can replace it, particularly as a result of man's ill-judged activities such as clearance of all vegetation and up-and-down slope cultivation. (FAO. Guidelines for land use planning. IDWG on Land Use Planning. FAO. 1989)

EVAPORATION
EVAPORATION

(1) Emission of water vapor by free surface of liquid water at a temperature below its boiling point.(WMO, 1992)

(1) Emission de vapeur d'eau par une surface libre d'eau liquide à une température inférieure à son point d'ébullition.(OMM, 1992)

EVAPOTRANSPIRATION
EVAPOTRANSPIRATION

(1) The combined processes by which water is transferred from the Earth's surface to the atmosphere by evaporation from land and ocean surfaces and by transpiration from vegetation.
(2) The total quantity of water transferred from the Earth to the atmosphere. (WMO, 1992)

(1) Processus combiné par lesquels de l'eau est transférée de la surface de la Terre à l'atmosphère par évaporation de la surface des terres et des océans et par la transpiration de la végétation.(OMM, 1992)
(2) Quantité totale d'eau transférée de la Terre à l'atmosphere. (OMM, 1992)

GROUNDWATER
EAU DE RETENTION

Subsurface water which occupies the zone of saturation; thus, only the water below the water table, as distinguished from interflow and soil moisture. (WMO, 1990)

Eau sub-superficielle qui occupe la zone de saturation, c'est à dire seule l'eau qui se situe sous la nappe phréatique, la limite de séparation entre la couche supérieure de sol non saturée et la couche inférieure de sol saturé pour la distinguer du flux interne et de l'humidité du sol. (OMM, 1990)

GROWING SEASON (vegetation season)
***SAISON DE CROISSANCE** (saison de végétation)*

Season during which meteorological conditions are favourable to the growth of plants. (WMO, 1992)

Saison pendant laquelle les conditions météorologiques sont favorables à la croissance des plantes. (OMM, 1992)

HUMID ZONE
ZONE HUMIDE

(1) Climatic zone characterized by a total absence of aridity.
(2) Zone in which precipitation exceeds potential evaporation. (WMO, 1992)

(1) Zone climatique caractérisée par une absence totale d'aridité.
(2) Zone où les précipitations excédent l'évaporation potentielle. (OMM, 1992)

HYDROLOGICAL CYCLE (water cycle)
***CYCLE HYDROLOGIQUE** (cycle de l'eau)*

The succession of stages through which water passes in the atmosphere: evaporation from the land or sea or inland waters, condensation to form clouds, precipitations, accumulation in the soil or in bodies of water and reevaporation. (WMO, 1992)

Succession des phases par lesquelles passe l'eau de l'atmosphère: évaporation à partir des terres, des mers, ou des nappes d'eau continentales, condensation en nuages, précipitations, accumulation dans le sol ou dans les nappes d'eau et reévaporation. (OMM, 1992)

IRRIGATION
IRRIGATION

Artificial application of water to lands for agricultural purposes.(IGH)

Technique qui consiste à amener de l'eau sur une zone de terrain pour des besoins agricoles. (GIH)

LAND

Land, in the context of desertification control, is a delineable area of the Earth's solid surface, the characteristics of which embrace all attributes of the biosphere immediately above or below this surface, including those of the near-surface climate, the soil and the terrain forms, the surface hydrology (including shallow lakes, rivers, marshes and swamps), the groundwater and the near-surface geohydrological reserve, the plant and animal populations, the human settlement pattern and the physical results of past and present human activity (terracing, water storage or drainage structures, roads, etc.). (Land Degradation in arid, semi-arid and dry sub-humid areas. W. Sombroek. R. Brinkman, R. Gommes. FAO presentation at INCD first session. May, 1993)

OVERGRAZING, DEGRADATION OF VEGETATION

A stocking rate above grazing capacity that will lead in the foreseeable future to rangeland deterioration. An area may be overstocked for a short period without decreasing rangeland condition (FAO. Guidelines: land evaluation for extensive grazing. FAO soils Bulletin 58. Rome 1991)

PRECIPITATION
PRECIPITATION

(1) Hydrometeor made up of an aggregate of aqueous particles, liquid or solid, crystallized or amorphous, which fall from a cloud or group of clouds and reach the ground.(OMM, 1990)
(2) Amount of precipitation on a horizontal surface in a day, month or year, and designated as daily, monthly or annual precipitation.(CID).

(1) Hydrométéore constitué de particules aqueuses qui se sont agrégées, liquides ou solides, cristallisées ou amorphes, et qui tombent d'un nuage ou d'un ensemble nuageux pour atteindre le sol. (OMM 1990)
(2) Quantité de précipitation tombée sur une surface horizontale pendant un jour, un mois ou une année et désignée comme précipitation journalière, mensuelle ou annuelle. (CID)

RAIN
PLUIE

Precipitation of liquid water particles, either in the form of drops of more than 0.5 mm in diameter, or of smaller widely scattered drops. (OMM 1992)

Précipitation de particule d'eau liquide sur forme de gouttes de diamètre supérieur à 0.5 mm ou de gouttes plus petites et très dispersées.(OMM 1992)

RAINFALL
CHUTE DE PLUIE

Amount of precipitation which is measured by means of a raingauge. (WMO 1992)

Hauteur de pluie mesurée à l'aide d'un pluviomètre. (OMM 1992)

RAINFALL DISTRIBUTION
REPARTITION DE LA PRECIPITATION

Manner in which depth of rainfall varies in space and time.(IGH)

Façon dont la hauteur de précipitation varie dans le temps et dans l'espace. (GIH)

RAINFALL REGIME
REGIME DES PLUIES

The character of the seasonal distribution of precipitation at any point. (WMO, 1990)

Caractère de la distribution saisonnière des précipitations en un point quelconque. (OMM 1990)

SEMI-ARID ZONE
ZONE SEMI-ARIDE

(1) Zone where in some years the precipitation is insufficient to maintain cultivation.

(2) Zone where evaporation frequently exceeds precipitation. (WMO, 1992)

(1) Zone dans laquelle la précipitation est, certaines années, insuffisantes pour y maintenir les cultures.
(2) Zone où l'évaporation excède souvent la précipitation. (OMM, 1992)

WATER BUDGET
INVENTAIRE HYDRIQUE

Budgeting or accounting of inflow and outflow of water within a given hydrological area.
See also water balance. (WMO, 1990)

Recensement ou évaluation des apports et des sorties d'eau d'une zone hydrologique bien définie.
Voir également bilan hydrique. (OMM 1990)

WATER DEFICIT
DEFICIT EN EAU

Cumulative difference between the potential evapotranspiration and precipitation during a certain period in which the precipitation is the smaller of the two. (IGH).

Différence cumulée entre l'évapotranspiration potentielle et la quantité de précipitation pendant la période où c'est, des deux termes, la quantité de précipitation qui a la valeur la plus faible. (GIH)

LIST OF ABBREVIATIONS AND REFERENCES
LISTE DES ABREVIATIONS ET REFERENCES

AMS	*Glossaire de Météorologie*/Glossary of Meteorology, 1959, American Meteorological Society, Boston, Mass.
CID	*Dictionnaire multilingue des techniques d'irrigation et de drainage*/Multilingual technical dictionary on irrigation and drainage, 1967, International Commission on Irrigation and Drainage, New Delhi
GIH/IGH	*Glossaire international d'hydrologie*/International Glossary of Hydrology, UNESCO/OMM, 1992
OMM/WMO	*Organisation météorologique mondiale*/World Meteorological Organization, *Glossaire des termes utilisés en agrométéorologie*/Glossary of terms used in agrometeorology WMO/TD - No 31, 1990. *Vocabulaire Météorologique international*/International meteorological vocabulary WMO/OMM/BMO No 182, 1992
ICSI	International Commission for Snow and Ice/*Commission internationale pour la neige et la glace*
OAA/FAO	*Organisation des Nations Unies pour l'alimentation et l'agriculture*/Food and Agriculture Organization of United Nations

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